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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,981	07/10/2002	Hendrick Kornelis	DN1999223USA	4090
27280	7590	12/06/2004	EXAMINER	
THE GOODYEAR TIRE & RUBBER COMPANY INTELLECTUAL PROPERTY DEPARTMENT 823 1144 EAST MARKET STREET AKRON, OH 44316-0001			FISCHER, JUSTIN R	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,981

Applicant(s)

KORNELIS ET AL.

Examiner

Justin R Fischer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by McClevey (US 1,396,515). McClevey is applied in the same manner as set forth in the Non-Final rejection mailed on July 7, 2004 (Paragraph 4).

As best depicted in Figures 3 and 6, McClevey discloses a pneumatic tire construction in which the rim and tire are provided with a plurality of knurls or protrusions, such that the tire and rim interlock or engage one another upon mounting (Page 1, Lines 70-90). It is clear from Figure 3 that the knurls are located along the bead base, the radially inner flange contacting surface, and the radially outer flange contacting surface. As to the language “the knurls on the tire have a location and a pitch complimentary to the knurls (on the rim) specified by applicable rim standards for the tire’s size”, the tire of McClevey is seen to constitute such a construction in that McClevey expressly states that “the ridges of one registering with the grooves of the other” (Page 1, Lines 85-90)- thus, the tire and rim are formed as an interlocking assembly.

As to claim 6, it is clear from Figures 1 and 3 that the knurls have a length along the entire extent of the respective bead bases. Additionally, it is suggested that the

language "length of bead base" be incorporated in the claim to clearly define the abbreviation L_B in an analogous manner to the description of the knurl length (claim properly recites "the knurls on the bead base have a length L_K ").

3. Claims 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeda (JP 03169727). Ikeda is applied in the same manner as set forth in the Non-Final rejection mailed on July 7, 2004 (Paragraph 5).

As best depicted in Figures 2-4, Ikeda teaches a pneumatic tire construction in which the entire rim contacting surface of the tire is provided with a plurality of knurls or protrusions. While the rim of Ikeda is not similarly formed with a plurality of knurls, it is emphasized that the claim is directed to a pneumatic tire, not a wheel assembly comprising a tire and a rim. The claim only requires that the tire is formed with a plurality of knurls and clearly, the tire is capable of forming an interlocking assembly if it were mounted on a rim having a complimentary arrangement of knurls.

Regarding claim 5, Figure 4 of Ikeda depicts a plurality of triangular knurls or protrusions.

As to claim 6, Figure 3 depicts the knurls as being disposed along the entire extent of the bead base.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over McClevey and further in view of Ikeda, Udall (US 4,209,051), and Hino (JP 05139106). As previously stated, McClevey discloses a pneumatic tire construction having a plurality of complimentary knurls in the tire and the rim. In particular, McClevey describes the knurls as "a series of ridges and grooves, or corrugations" (Page 1, Lines 75-85). While the knurls of McClevey are not expressly depicted or described as being triangular, one of ordinary skill in the art at the time of the invention would have found it obvious to form them with such a geometry since the language of McClevey broadly suggests the inclusion of corrugations and triangular arrangements are well known and extensively used in similar tire assemblies. For example, Ikeda (Figure 3), Udall (Figure 6), and Hino (Figure 8) each disclose the use of a triangular design at the tire/rim interface. It is emphasized that the critical issue of McClevey is not the specific geometry of the knurls but rather the inclusion of the knurls in the tire and the rim to define an interlocking assembly. It would have been within the purview of one of ordinary skill in the art at the time of the invention to select a triangular orientation for the knurl assembly of McClevey, especially in view of the fact that such orientations are consistent with similar tire constructions.

Response to Arguments

6. Applicant's arguments filed July 7, 2004 have been fully considered but they are not persuasive.

Regarding McClevey, applicant contends that the reference does not show knurls in the radially outer flange contacting surface. However, McClevey specifically states

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that a series of ridges and grooves (or corrugations) are formed in the surfaces of the rim that are to be in contact with the tire (Page 1, Lines 80-85). Thus, the outermost region of the tire at which the tire and rim contact would include knurls or corrugations- this region is analogous to the radially outer flange contacting surface. The claims as currently drafted do not require that knurls are present over the entire flange surface but at the radially outer flange contacting surface. Thus, if the grooves and corrugations are present over the entire rim/tire contacting surface, they are necessarily existent on the radially outer flange contacting surface.

With respect to Ikeda, applicant argues that the tire of Ikeda does not include knurls that are complimentary to rim knurls, or for that matter to anything. As previously noted and maintained above, the claims as currently drafted are directed to a tire construction, not a wheel assembly comprising a tire and a rim. It is emphasized that the structure of the tire is the same with or without a rim having a plurality of knurls. Thus, as currently drafted, the claims ultimately define a tire having an intended use of being mounted on a rim having a plurality of knurls. It is evident that the tire of Ikeda has the capability of being mounted on a tire having a plurality of knurls- there is no requirement that the tire be mounted on a rim having a plurality of knurls only that the tire have the capability of being mounted on such a rim. Thus, the tire structures of Ikeda and the claimed invention are the same in regards to the inclusion of a plurality of knurls. Lastly, it is agreed that the rim of Ikeda does not contain a rim with a plurality of complimentary knurls; however, such a description teaches away from a wheel

assembly formed of complimentary knurls, not a tire construction having a plurality of knurls that can be mounted on a rim formed with a plurality of knurls.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(571) 272-1215**. The examiner can normally be reached on M-F (7:30-4:00).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Justin Fischer

December 3, 2004



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